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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ENGLAND, DAVID E

ART UNIT

PAPER NUMBER

2143

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/014,602	Applicant(s) UZRAD-NALI ET AL.	
	Examiner David E. England	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 9, 12 - 24, 27 - 56, and 59 - 79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 9, 12 - 24, 27 - 56, and 59 - 79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1 – 9, 12 – 24, 27 – 56, and 59 – 79 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 76 and 77 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
4. The limitation of “an intelligent network interface card” and “wherein said data is not moved between memory location of the intelligent network interface card”, is not disclosed in any part of the specification. Applicant is asked to amend the claim language to state what the true nature of the invention is.
5. Claim 77 states, “queuing a transmission information respective of said data in a transmission queue without further movement of said data in memory.” The specification does not state how this is possible. In fact it appears to be impossible. In order to “queue information” one has to move it from one memory location to the queue in order for it to be considered

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“queued”. Applicant is asked to amend the claim language or explain while using the specification and drawings.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. In claim 3, it is unclear in the specification how said host computer is used “solely” for “initializing the networked system”. Applicant is asked to point to sections of the specification and drawing to support their arguments.

9. Claim 6 is rejected for its dependency on claim 3.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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11. Claims 1 – 5, 7 – 9, 12 – 17, 19 – 24, 28 – 49, 51, 53 – 56, 60 – 76, 78 and 79 are rejected under 35 U.S.C. 102(e) as being anticipated by Fishler et al. U.S. Patent No. 5954794, (hereinafter Fishler).

12. Referencing claim 1, as closely interpreted by the Examiner, Fishler teaches a packet-based networked system comprising:

13. a host computer, (e.g., col. 8, line 29 – col. 9, line 4);

14. a data streamer connected to said host computer, said data streamer capable of transferring packet data between said host and networked resources using a memory within said data streamer without moving the data between memory locations within the memory during processing by said data streamer, (e.g., col. 8, line 29 – col. 9, line 4);

15. a communication link connecting said data streamer and networked resources, (e.g., col. 8, line 29 – col. 9, line 4).

16. Referencing claim 2, as closely interpreted by the Examiner, Fishler teaches said communication link is a dedicated communication link, (e.g., col. 8, line 29 – col. 9, line 4).

17. Referencing claim 3, as closely interpreted by the Examiner, Fishler teaches said host computer is used solely for initializing the network system, (e.g., col. 8, line 29 – col. 9, line 4).

18. Referencing claim 4, as closely interpreted by the Examiner, Fishler teaches the networked resources include networked storage devices, (e.g., col. 8, line 29 – col. 9, line 4).

19. Referencing claim 5, as closely interpreted by the Examiner, Fishler teaches the dedicated communication link is a network communication link, (e.g., col. 8, line 29 – col. 9, line 4).

20. Referencing claim 7, as closely interpreted by the Examiner, Fishler teaches the network communication link is at least one of:

21. a local area network (LAN) link, a wide area network, (e.g., col. 1, lines 44 – 58).

22. Referencing claim 8, as closely interpreted by the Examiner, Fishler teaches the network communication is based on at least one of:

23. Ethernet, Internet protocol (IP), asynchronous transfer mode (ATM) protocol, (e.g., col. 1, lines 44 – 58).

24. Referencing claim 9, as closely interpreted by the Examiner, Fishler said data streamer is configured to relieve said host from at least upper level protocol (UPL) processing, (e.g., col. 6, lines 29 – 47).

25. Referencing claim 12, as closely interpreted by the Examiner, Fishler teaches

26. at least one host interface, interfacing with said host computer, (e.g., col. 8, line 29 – col. 9, line 4);

27. at least one packet network interface, enabling the interfacing with a plurality of networked resources, (e.g., col. 8, line 29 – col. 9, line 4);

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28. at least one processing node, capable of generating additional data and commands necessary for packet network layer operations, (e.g., col. 8, line 29 – col. 9, line 4);
 29. an admission and classification unit that initially processes the data, (e.g., col. 8, line 29 – col. 9, line 4);
 30. an event queue manager that supports processing of the data, (e.g., col. 8, line 29 – col. 9, line 4);
 31. a scheduler that supports processing of the data, (e.g., col. 10, lines 10 – 54);
 32. a memory manager that manages the memory, (e.g., col. 10, lines 10 – 54);
 33. a data interconnect unit that receives the data from said admission and classification unit, (e.g., col. 10, lines 10 – 54); and
 34. a control hub, (e.g., col. 10, lines 10 – 54).
-
35. Referencing claim 13, as closely interpreted by the Examiner, Fishler teaches said processing node is further connected to an expansion memory, (e.g., col. 10, lines 10 – 54).
 36. Referencing claim 14, as closely interpreted by the Examiner, Fishler teaches said expansion memory is a code memory, (e.g., col. 10, lines 10 – 54).
 37. Referencing claim 22, as closely interpreted by the Examiner, Fishler teaches said event queue manager is capable of managing at least:
 38. an object queue, (e.g., col. 10, lines 10 – 54); and
 39. an application queue, (e.g., col. 10, lines 10 – 54).

40. Referencing claim 23, as closely interpreted by the Examiner, Fishler teaches said object queue points to a first descriptor while a first header is processed, (e.g., col. 9, lines 27 – 53).

41. Referencing claim 24, as closely interpreted by the Examiner, Fishler teaches a header of data processed is in one of:

42. a second communication layer, third communication layer, fourth communication layer, fifth communication layer, (e.g., col. 9, lines 27 – 53).

43. Referencing claim 28, as closely interpreted by the Examiner, Fishler teaches said object queue holds at least a start address to the header information, (e.g., col. 9, lines 27 – 53).

44. Referencing claim 29, as closely interpreted by the Examiner, Fishler teaches said object queue hold at least a end address to the header information, (e.g., col. 9, lines 27 – 53).

45. Referencing claim 37, as closely interpreted by the Examiner, Fishler teaches the system is adapted to receive at least one packet of data with headers from a network resource and opening a new descriptor if the headers do not belong to a previously opened descriptor, (e.g., col. 9, lines 27 – 53).

46. Referencing claim 30, as closely interpreted by the Examiner, Fishler teaches said application queue points to said first descriptor instead of said object queue if at least an application header is available, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

47. Referencing claim 31, as closely interpreted by the Examiner, Fishler teaches said first descriptor points at least to a beginning of the application header, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

48. Referencing claim 32, as closely interpreted by the Examiner, Fishler teaches said application queue maintains address of said beginning of the application header, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

49. Referencing claim 33, as closely interpreted by the Examiner, Fishler teaches said first descriptor points at least to an end of said application header, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

50. Referencing claim 34, as closely interpreted by the Examiner, Fishler teaches said application queue maintains address of said end of said application header, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

51. Referencing claim 35, as closely interpreted by the Examiner, Fishler teaches when all application headers are available, data is transferred to said host computer in a continuous operation, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

52. Referencing claim 36, as closely interpreted by the Examiner, Fishler teaches said continuous operation is based on pointer information stored in said application queue, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

53. Referencing claim 39, as closely interpreted by the Examiner, Fishler teaches the system is adapted to transfer control of the descriptor to the application queue if at least one application header is available and is further adapted to store a start and end address of the application header in the application queue, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

54. Referencing claim 40, as closely interpreted by the Examiner, Fishler teaches the system is adapted to transfer the data to the host based on the stored application headers, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

55. Referencing claim 42, as closely interpreted by the Examiner, Fishler teaches the system is adapted to update an earlier created descriptor to point to a portion of the data that is to be sent next, (e.g., col. 3, lines 38 – 55 & col. 8, line 43 – col. 9, line 39).

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56. Claims 15 – 17, 19 – 21, 38, 41, 43 – 49, 51, 53 – 56, 60 – 76, 78 and 79 are rejected for similar reasons stated above.

Claim Rejections - 35 USC § 103

57. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

58. Claims 6, 18, 50 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishler in view of Starr et al. U.S. Patent No. 6807581, (hereinafter Starr).

59. Referencing claim 6, as closely interpreted by the Examiner, Fishler does not specifically teach the dedicated communication link is selected from a group consisting of personal computer interface (PCI), PCI-X, 3GIO, InfiniBand, SP1-3, or SPI-4. Starr teaches the dedicated communication link is selected from a group consisting of personal computer interface (PCI), PCI-X, 3GIO, InfiniBand, SP1-3, or SPI-4, (e.g., col. 2, lines 21 – 49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Starr with Fishler because utilizing a PCI is well known in the computer arts and is used in communicating information to and from computers and other devices.

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60. Referencing claim 77, as closely interpreted by the Examiner, Starr teaches a method for transferring application data from a host computer to a packet based network resource via an intelligent network interface card, the method comprising:

61. a) receiving data from the host computer, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

62. b) receiving destination address from the host computer, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

63. c) queuing a transmission information respective of said data in a transmission queue, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

64. d) updating a descriptor pointing to portion of said data to be sent next, (e.g., col. 25, line 54 – col. 26, line 37);

65. e) creating headers for the transmission, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

66. f) transmitting the portion of said data to be sent next, beginning at the point pointed to by said descriptor, and respective headers over the network, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42);

67. g) repeating steps d through f until all of the application data is sent, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42); and

68. h) indicating to the host computer that transfer is complete, (e.g., col. 2, lines 21 – 62 & col. 7, lines 23 – 42).

69. Fishler more specifically teaches,

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70. c) queuing a transmission information respective of said data in a transmission queue without further movement of said data in memory, (e.g., col. 8, line 29 – col. 9, line 4;

71. wherein said data is not moved between memory locations of the intelligent network interface card, (e.g., col. 8, line 29 – col. 9, line 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Starr with Fishler because utilizing pointers in a system instead of copying information could save memory space in a system.

72. Claims 18 and 50 are rejected for similar reasons as stated above.

73. Claims 20, 27, 52 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fishler as applied to claims 1, 22 and 23 above, and further in view of Muller et al. (6453360), (hereinafter Muller).

74. As per claim 27, as closely interpreted by the Examiner, Fishler does not specifically teach said object queue points to a second descriptor if a second header has a same tuple corresponding to the first header. Muller teaches said object queue points to a second descriptor if a second header has a same tuple corresponding to the first header, (e.g., col. 25, lines 16 – 27). It would have been obvious to one of ordinary skill in the art, at the time the invention was filed, to combine Muller with Starr because if the second header “tuple” or address is different then the first address there could be an error in addressing the packet to a specific user, therefore,

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the system would have to send an error message to the sending node to notify the sending node about the error so it can be remedied.

75. Claims 20, 52 and 59 are rejected for similar reasons as stated above.

Response to Arguments

76. Applicant's arguments, see Pre-Appeal Brief Conference, filed 10/18/2006, with respect to the rejection(s) of claim(s) 1 – 9, 12 – 24, 27 – 56, and 59 – 79 under 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Fishler.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 571-272-3912. The examiner can normally be reached on Mon-Thur, 7:00-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David E. England
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Art Unit 2143

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